

Please replace claims 1-9, 11, 12, 14, 17, 19, and 20 with the following amended claims:

- 1           1. (As Amended) A pressure-sensitive sensor disposed at at least one of an  
2 opening and an opening-closing unit for opening and closing said opening, used  
3 for detecting contact of an object and preventing seizure of the object between said  
4 opening and said opening-closing unit, said pressure-sensitive sensor comprising:  
5           pressure-sensitive means for generating an output signal depending on  
6 deformation; and  
7           support means for supporting said pressure-sensitive means in at least one  
8 of said opening and said opening-closing unit,  
9           wherein said support means has a greater flexibility than said pressure-  
10 sensitive means.
- 1           2. (As Amended) The pressure-sensitive sensor of claim 1,  
2           wherein said support means includes:  
3           a deformation amplifying portion for amplifying the deformation of said  
4 pressure-sensitive means.
- 1           3. (As Amended) The pressure-sensitive sensor of claim 2,  
2           wherein said deformation amplifying portion includes:  
3           a hollow portion.
- 1           4. (As Amended) The pressure-sensitive sensor of claim 1,  
2           wherein said support means includes:  
3           a vibration damping portion for damping vibration.
- 1           5. (As Amended) The pressure-sensitive sensor of claim 4,  
2           wherein said support means includes:

3 a deformation amplifying portion for amplifying the deformation of said  
4 pressure-sensitive means,

5 said vibration damping portion serves also as said deformation amplifying  
6 portion.

1 6. (As Amended) The pressure-sensitive sensor of claim 1,

2 wherein said support means is formed of a part of a weather strip of an  
3 automobile.

1 8. (As Amended) The pressure-sensitive sensor of claim 1, further  
2 comprising:

3 plural electrodes for leading out signals; and

4 a resistor for detecting breakage disposed between said electrodes for  
5 detecting breakage of said electrodes.

1 9. (As Amended) The pressure-sensitive sensor of claim 1,

2 wherein said pressure-sensitive means is composed of a flexible  
3 piezoelectric sensor, and

4 said support means flexibly supports said piezoelectric sensor along a  
5 shape of edge of said opening or said opening-closing unit.

1 11. (As Amended) An object detecting device for detecting a contact of an  
2 object, and preventing a seizure of the object between an opening and an opening-  
3 closing unit for opening and closing said opening, said object detecting device  
4 comprising:

5 a pressure-sensitive sensor disposed at at least one of said opening and  
6 said opening-closing unit, said pressure-sensitive sensor comprising:

7 pressure-sensitive means for generating an output signal depending on  
8 deformation; and

9 support means for supporting said pressure-sensitive means in at least one

10 of said opening and said opening-closing unit, said support means having a greater  
11 flexibility than said pressure-sensitive means; and

12 judging means for judging the contact of the object with said pressure-  
13 sensitive sensor on the basis of an output signal of said pressure-sensitive sensor.

1 12. (As Amended) The object detecting device of claim 11, further  
2 comprising:

3 notice means for informing a third party of a judging result of said judging  
4 means.

1 14. (As Amended) The object detecting device of claim 11,  
2 wherein said judging means includes:

3 a filter for extracting only a specified frequency component from the  
4 output signal of said pressure-sensitive sensor.

1 17. (As Amended) The object detecting device of claim 11,  
2 wherein said judging means includes:

3 a signal input unit for feeding the output signal of said pressure-sensitive  
4 means;

5 a signal output unit for issuing a judging result of judging the contact of  
6 the object to said pressure-sensitive sensor; and

7 a bypass unit for passing high frequency signal through between said  
8 signal input unit and said signal output unit.

1 19. (As Amended) An object detecting device for detecting a contact of an  
2 object, and preventing a seizure of the object between an opening and an opening-  
3 closing unit for opening and closing said opening, said object detecting device  
4 comprising:

5 a pressure-sensitive sensor disposed at at least one of said opening and  
6 said opening-closing unit, said pressure-sensitive sensor comprising:

7 pressure-sensitive means for generating an output signal depending on  
8 deformation, said pressure-sensitive means being composed of a flexible  
9 piezoelectric sensor; and

10 support means for supporting said pressure-sensitive means along a shape  
11 of an edge of said opening or said opening-closing unit, said support means having  
12 a greater flexibility than said pressure-sensitive means;

13 judging means for judging the contact of the object with said pressure-  
14 sensitive sensor on the basis of an output signal of said pressure-sensitive sensor;  
15 and

16 a discharge unit for discharging an electric charge generated in said  
17 piezoelectric sensor disposed in at least one of said piezoelectric sensor and said  
18 judging means.

1 20. (As Amended) An opening-closing device having a function for  
2 detecting a contact of an object, and preventing a seizure of the object between an  
3 opening and an opening-closing unit for opening and closing said opening, said  
4 opening-closing device comprising:

5 an object detecting device comprising:

6 a pressure-sensitive sensor disposed at at least one of said opening and  
7 said opening-closing unit, said pressure-sensitive sensor comprising:

8 pressure-sensitive means for generating an output signal depending on  
9 deformation; and

10 support means for supporting said pressure-sensitive means in at least one  
11 of said opening and said opening-closing unit, said support means having a greater  
12 flexibility than said pressure-sensitive means; and

13 judging means for judging the contact of the object with said pressure-  
14 sensitive sensor on the basis of an output signal of said pressure-sensitive sensor;

15 drive means for driving said opening-closing unit; and

16 control means for controlling said drive means so as to stop closing action  
17 of said opening-closing unit or open said opening-closing unit when said judging  
18 means judges the contact of the object with said pressure-sensitive sensor when  
19 said opening-closing unit is closing.

1 21. (As Amended) The opening-closing device of claim 20,

2 wherein said control means includes:

3 a contact judging unit of said opening-closing unit for judging the contact  
4 of the object with said opening-closing unit on the basis of a detected drive state  
5 when said contact judging unit detects the drive state when said drive means  
6 drives said opening-closing unit; and

7 a controller for controlling said drive means on the basis of an output signal from  
8 at least one of said object detecting device and said contact judging unit.

Please add the following new claims:

1 24. (Newly Added) An opening-closing device having a function for  
2 detecting a contact of an object, and preventing a seizure of the object between an  
3 opening and an opening-closing unit for opening and closing said opening, said  
4 opening-closing device comprising:

5 an object detecting device comprising:

6 a pressure-sensitive sensor disposed at at least one of said opening and  
7 said opening-closing unit, said pressure-sensitive sensor comprising:

8 pressure-sensitive means for generating an output signal depending on  
9 deformation, said pressure-sensitive means being composed of a flexible  
10 piezoelectric sensor; and

11 support means for supporting said pressure-sensitive means along a shape  
12 of an edge of said opening or said opening-closing unit, said support means having  
13 a greater flexibility than said pressure-sensitive means;

14 judging means for judging the contact of the object with said pressure-

15 sensitive sensor on the basis of an output signal of said pressure-sensitive sensor;  
16 and

17 a discharge unit for discharging an electric charge generated in said  
18 piezoelectric sensor disposed in at least one of said piezoelectric sensor and said  
19 judging means;

20 drive means for driving said opening-closing unit; and

21 control means for controlling said drive means so as to stop closing action  
22 of said opening-closing unit or open said opening-closing unit when said judging  
23 means judges the contact of the object with said pressure-sensitive sensor when  
24 said opening-closing unit is closing.

1           25. (Newly Added) The opening-closing device of claim 24,

2 wherein said control means includes:

3 a contact judging unit of said opening-closing unit for judging the contact  
4 of the object with said opening-closing unit on the basis of a detected drive state  
5 when said contact judging unit detects the drive state when said drive means  
6 drives said opening-closing unit; and

7           a controller for controlling said drive means on the basis of an output  
8   signal from at least one of said object detecting device and said contact judging  
9   unit.

1           26. (Newly Added) The opening-closing device of claim 25,

2            wherein said control means controls said drive means on the basis of an  
3    output signal of said contact judging unit if abnormality occurs in said object  
4    detecting device.

MAT-8183US

- 8 -

- 5           27. (Newly Added) The opening-closing device of claim 24,  
6           wherein said control means controls said drive means so as to close after  
7           once moving said opening-closing unit by a specific distance in opening direction  
8           or opening for a specific time when closing said opening-closing unit.

Respectfully submitted,



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Enclosure: Version With Markings Showing Changes Made

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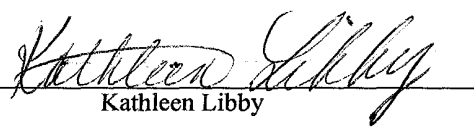
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